

5.0 CUMULATIVE IMPACTS

Under all the alternatives analyzed in this EA, cumulative impacts would be minor or insignificant for all resource areas assessed. Impacts to land use would not extend beyond those for the No Action Alternative for the construction of the boiler house and fuel storage facility. This would involve significantly less than one 1 percent of the available land at Y-12. Life extension of the existing Y-12 Steam Plant infrastructure would have no cumulative impact to geology and soils because of the stability of soils at the Y-12 Complex, and because all facilities would comply with regulatory requirements. Air quality at the Y-12 Complex is generally good. With the exception of the 8-hour O₃ (ozone) and PM_{2.5} standards, the greater Knoxville and Oak Ridge areas are in attainment with the NAAQS for all other criteria pollutants for which EPA has made attainment designations. Actual emissions are expected to be significantly lower under the Proposed Action versus current operations for total particulate matter, sulfur dioxide, and nitrogen oxides. The alternatives analyzed in this EA would not have an adverse cumulative impact on air quality or regional climatic conditions.

All the alternatives analyzed, except for the No Action alternative, would have a beneficial effect on the existing Y-12 Steam Plant system. There would be no negative effects on the groundwater and surface water resources. Similarly, no cumulative impacts to ecological resources are expected due to the absence of any critical habitats for threatened or endangered species and significant ecological resources at locations potentially affected by the alternatives. This conclusion is also true for cultural resources. Socioeconomics would be relatively unchanged by any of the alternatives because the alternatives would not: create a significant number of jobs, exceed housing demands, community services, or transportation capabilities. With respect to human health, improvements to the existing Y-12 Steam Plant system would reduce air pollutants. Waste management activities would be unaffected by the alternatives. All wastes generated would be managed and disposed of in accordance with the project-specific waste management plan and in compliance with all regulatory requirements. Although the stacks associated with the packaged boiler system would be taller than the boiler house and the adjacent buildings, the overall visual classification of the Y-12 Complex would not from a highly developed site.

This page left intentionally blank